Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method comprising:

establishing an interruption-free communication path between a mobile-device in a first-communication-area and a server through a home-agent, the mobile-device initially being assigned a set of addresses when registered with the home-agent, the home-agent using the assigned addresses to track the mobile-device; and

maintaining the interruption-free communication path through the home-agent when the mobile-device moves to a second-communication-area, the maintaining comprising the mobile-device requesting a new address from a server and communicating the new address to the home-agent. ~~; and~~

~~using respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile device and the home agent to establish the communication path and maintain the communication path.~~

2. (Canceled)

3. (Original) The method of claim 1 including maintaining the communication path to the mobile-device when moving from the first-communication-area associated with a first-subnet to a second-communication-area associated with a second-subnet.

4. (Presently amended) The method of claim 1 establishing comprises ~~comprising~~:

assigning a home-address associated with the home-agent to the mobile-device;

assigning a first-real-address associated with a first-communication-area to the mobile-device; and

detecting the mobile-device's movement into the second-communication-area.

5. (Presently amended) The method of claim 4 further comprising ~~including~~ assigning a second-real-address associated with the second-communication-area to the mobile-device.

6. (Presently amended) The method of claim 5 further comprising ~~including~~ generating the first-real-address and the second-real-addresses from a server using dynamic host configuration protocol (DHCP).

7. (Original) The method of claim 4 including maintaining the communication path when the mobile-device moves from the first-communication-area associated with a first-subnet to the second-communication-area associated with a second-subnet.

8. (Original) The method of claim 4 including detecting movement into the second-communication-area is performed by the mobile-device.

9. (Presently amended) A method comprising:

generating a request from a mobile-device, the request comprising a request-layer including a home-address of the mobile-device and a server-address;

encapsulating the request-layer with a roaming-layer including a real-address of the mobile-device and a home-agent-address;

communicating the encapsulated request-layer to a home-agent based on the home-agent-address; ~~and~~

using a program layer below a transmission control protocol/internet protocol (TCP/IP) program layer in the mobile-device to generate the request, encapsulate the request-layer and communicate the encapsulated request-layer;

removing the roaming-layer from the encapsulated request-layer; and

communicating the request-layer from the home-agent to a server based on the server-address.

10. (Canceled) ~~The method of claim 9 comprising:~~

~~removing the roaming-layer from the encapsulated request-layer; and~~

~~communicating the request-layer from the home-agent to a server based on the server-address.~~

11. (Presently amended) The method of claim 9 further ~~10~~ comprising:

generating a response to the request from the home-agent to the server, the response including a response-layer having the server-address and the home-agent-address; and

communicating the response to the home-agent.

12. (Original) The method of claim 11 further comprising:

encapsulating the response with a roaming-layer, including the real-address and the home-address of the mobile-device; and

communicating the encapsulated response to the mobile-device.

13. (Canceled)

14. (Previously presented) The method of claim 9 including using the program layer below a transmission control protocol/internet protocol (TCP/IP) program layer in the home-agent to modify the encapsulated request-layer with the roaming-layer and communicate the request-layer.

15. (Previously presented) A communication system comprising:

home-agent;

a server; and

a mobile-device including a processor configured to:

generate a request from the mobile-device, the request comprising a request-layer including a home-address of the mobile-device and a server-address of the server,

encapsulate the request-layer with a roaming-layer including a real-address of the mobile-device and a home-agent-address,

communicate the encapsulated request-layer to the home-agent based on the home-agent-address; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain a communication path between the home-agent and the mobile-device.

16. (Previously presented) The system of claim 15 wherein the home-agent includes a processor configured to remove the roaming-layer from the encapsulated request-layer and communicate the request-layer from the home-agent to the server based on the server-address.

17. (Previously presented) The system of claim 15 wherein the home-agent includes a processor configured to:

encapsulate a response with a roaming-layer, including the real-address and the home-address of the mobile-device and

communicate the encapsulated response to the mobile-device.

18. (Previously presented) A mobile-device comprising:

a network-interface-adapter;

a processor configured to:

generate a request comprising a request-layer including a home-address of the mobile-device and a server-address,

encapsulate the request-layer with a roaming-layer including a real-address of the mobile-device and a home-agent-address,

communicate the encapsulated request-layer through the network-interface-adapter to a home-agent based on the home-agent-address; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain a communication path between the home-agent and the mobile-device.

19. (Canceled)

20. (Previously presented) A home-agent comprising:

a network-interface-adapter;

a processor configured to:

receive a request-layer encapsulated with a roaming layer, the request-layer including a server address,

remove the roaming-layer from the encapsulated request-layer, and

communicate the request-layer through the network-interface-adapter to a server based on the server-address, wherein

the processor uses respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers.

21. (Original) The home-agent of claim 20, the processor configured to:

receive a response from the server;

encapsulate the response with a roaming-layer including a real-address and a home-address of the mobile-device, and

communicate the encapsulated response to the mobile-device.

22. (Canceled)

23. (Presently amended) An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

establish an interruption-free communication path between a mobile-device in a first-communication-area and a server through a home-agent, the mobile-device initially being

assigned a set of addresses when registered with the home-agent, the home-agent using the assigned addresses to track the mobile-device; and

maintain the interruption-free communication path through the home-agent when the mobile-device moves to a second-communication-area, maintaining comprising the mobile-device requesting a new address from a server and communicating the new address to the home-agent. ~~; and~~

~~using respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish the communication path and maintain the communication path.~~

24. (Original) The article of claim 23 including instructions for causing the computer system to assign a second-real-address associated with the second-communication-area to the mobile-device.

25. (Previously presented) An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

generate a request from a mobile-device, the request comprising a request-layer including a home-address of the mobile-device and a server-address;

encapsulate the request-layer with a roaming-layer including a real-address of the mobile-device and a home-agent-address;

communicate the encapsulated request-layer to a home-agent based on the home-agent-address; and

use respective program layers below transmission control protocol/internet protocol (TCP/IP) program layers in the mobile-device and the home-agent to establish a communication path and maintain a communication path between the home-agent and the mobile-device.

26. (Previously presented) The article of claim 25 including instructions for causing the computer system to:

remove the roaming-layer from the encapsulated request-layer; and

communicate the request-layer from the home-agent to a server based on the server-address.

27. (Previously presented) The article of claim 25 including instructions to:

generate a response to the request from the home-agent to a server, the response including a response-layer containing the server-address and the home-agent-address; and

communicate the response to the home-agent.

28. (Original) The article of claim 25 including instructions to:

encapsulate the response with a roaming-layer including the real-address and the home-address of the mobile-device; and

communicate the encapsulated response to the mobile-device.

29. (Previously presented) The method of claim 1 wherein a protocol other than TCP/IP is also enabled to establish the communication path and maintain the communication path.